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Editorial comment

What is required from studies evaluating multidisciplinary treatment in pain clinics?

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This issue of the *Scandinavian Journal of Pain* presents a study with the ambitious title "Long-term outcome of multidisciplinary intervention of chronic non-cancer pain patients in a private setting" by Meineche-Schmidt et al. [1]. The title is ambitious because very few studies so far have actually proved scientifically that multidisciplinary pain treatment (MDPT) of chronic non-cancer pain patients is in fact effective long term. Although some studies have found a beneficial effect [2,3], others have not [4], and very few have presented follow up results. A less convincing effect is found in studies that have included heterogeneous groups of patients from pain clinics, e.g. in the mentioned study [1] compared with those who have included only patients with selected diagnoses like low back pain and fibromyalgia [2]. Most studies evaluating outcome of MDPT have done so for specific diagnoses, while only few studies have evaluated outcome of multidisciplinary intervention in clinics receiving the whole range of patients with chronic non-cancer pain [3].

The authors of this study show great responsibility when they try to report long-term outcome in patients from a private pain clinic [1]. This pain clinic receives patients who had been granted a waiting time guarantee of 1 month by the government health care insurance in Denmark. These patients had been on waiting lists to Danish public pain centres with much longer waiting times than 1 month. It is also very generous of experienced clinicians from two of Copenhagen's well run public multidisciplinary pain centres with long waiting lists to help the first author with this study. The study has, however, significant weaknesses, which will be visible when this editorial discusses what is required from studies evaluating multidisciplinary treatment in pain clinics.

Since studies, referring effects of MDPT possess so different methodology and report so different results; it is particularly important to report in detail what kind of patients and what kind of treatments are included in the study. The patients in the study by Meineche-Schmidt et al. [1] are not described at all; they only mention that they included patients from a waiting list of public multidisciplinary pain centres. The study describes four different kinds of treatment program [1]: three different group programs and one individual treatment. In particular, the individual therapy is poorly described: It "consisted of one or more of the following programs: pharmacological pain management, psychological advice (6 sessions) or treatment (12 sessions), physiotherapy, relaxation therapy or socio-economic counselling." A simple treatment modality is not necessarily a disadvantage. On the contrary, less complex treatment offered by private clinics may be beneficial, but it cannot be called MDPT. According to the International Association for the Study of Pain (IASP), a MDPT should involve appropriate specialists as needed, to ensure optimal management of all biomedical and psychological aspects of pain problems. Treatment should aim to improve pain relief, the patients' coping with their chronic pain, and also to improve patients' physical, psychological, work, and social role functioning.

The quality of a MDPT study is highly dependent on to which extent patients are adequately randomized. It is a well-established knowledge that scientific value of the outcome of a treatment depends on whether it is compared with a control group, and/or a group receiving standard treatment. After including a patient in a study, the patient must be randomized to control or study intervention. Randomization must be done according to accepted standards and must be described in detail. Unfortunately, pseudo-randomization still prevails, e.g. control on even-numbered dates and study intervention on odd-numbered days. This ruins the value of the outcome data completely. However, it is often described in the paper as "... the patients were randomized to..." without giving enough details to reveal how in fact the patients were allotted to the various groups. The present study compared group therapy with individual therapy, according to whether the patients wanted, or were able to receive one or the other [1]. They were definitely not randomized.

It is, however, difficult to compare MDPT with a no-treatment control group. This has been considered the gold standard when evaluating the effects of any treatment, in particular if it examines long-term effects. The study of Becker et al. [5] compared MDPT with a no-treatment group on a waiting list on which they remained for 6 months. This made long-term comparison impossible. Becker et al. performed an evaluation at the middle of the MDPT treatment, as the MDPT in that study lasted in average for 10.5 months [5]. In some countries, it is now impossible to perform a long-term MDPT evaluation with a no-treatment waiting list group, because the time

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on a waiting list for such treatment is guaranteed to be short by the responsible insurance (e.g. the governments in Denmark and Norway).

An alternative to a no-treatment group is to compare two different types of MDPT treatments, as Meineche-Schmidt et al. [1] did in comparing MDPT in a group setting with individualized MDPT. Still, the patients must be properly randomized to one or the other group. This is the main weakness of the study of Meineche-Schmidt et al., amounting almost to a "fatal flaw". The authors claim that MDPT in a group is better than individualized treatment. They not only were not randomized, they even selected patients to group or individualized treatment according to whether the patients preferred one or the other or were unable to follow a group therapy [1].

The outcome of a multidisciplinary pain treatment must be evaluated long-term and not at the end of treatment. As mentioned, one of the most recognized randomized studies that compared MDPT with no-treatment, in fact suffered from this significant weakness: the outcome evaluations were done when the treatment was only halfway finished [5].

Another weakness is that Meineche-Schmidt et al. evaluated all the patients at the same time although the patients were treated over a time-period of two and a half years. All envelopes were mailed at the same time and thus some patients answered half a year, others around 2 years after treatment. The response rate was rather low and it was considered too costly and difficult to send reminders! The only reason to publish this weak pilot study is that it has generated an interesting hypothesis: "*MDPT in a group setting is more effective in the long run than individualized, and more costly MDPT*." This is an important research hypothesis that can be tested in clinical trials. It must be studied in properly planned and executed clinical studies in which patients are randomized after evaluation to document that the patient could have and would accept either group-MDPT or individualized MDPT. Evaluation after a significant time of at least 12 months after the patients have finished their treatment will document any long lasting beneficial effect.

New studies evaluating multidisciplinary treatment in pain clinics may use new technology. Follow-up can now be performed via automatically set mobile phone messages informing and remind the patients to answer questions on their PC. The Norwegian Pain Society has created a minimum questionnaire containing the most relevant issues (some information can be found at www.norsksmerteforening.no), and the members of that society now have the possibility to use this new technology in several studies. This system has the possibility to follow patients for years and really evaluate long-term outcome of multidisciplinary intervention of chronic non-cancer pain patients. The patients will automatically get new reminders on their mobile phone to answer follow up questionnaires on web from their PC. The costs will not be prohibitive.

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